

NOTE

Neotype Designation for *Raptoheptagenia cruentata*
(Walsh) (Ephemeroptera: Heptageniidae)

Individuals of predaceous flatheaded mayfly larvae in North America that have been tentatively known as *Anepeorus* McDunnough (Burks, B. D. 1953. Ill. Nat. Hist. Surv. Bull. 26: 1–216) were recently reared through to adults of *Heptagenia cruentata* Walsh by Whiting and Lehmkuhl (1987. Canad. Entomol. 119: 405–407) in Saskatchewan. Those authors, while correctly associating the larvae, erected the genus *Raptoheptagenia* (= *Heptagenia cruentata*), recognizing the highly unusual larvae. These larvae have evidently been referable to either species of *Anepeorus*—the eastern *A. simplex* (Walsh) or the western *A. rusticus* McDunnough—because the range of *R. cruentata* includes both areas, and McCafferty and Provonsha (1985. Gr. Lakes Entomol. 18: 1–6) found that Saskatchewan larvae presumed to be *A. rusticus* and eastern larvae presumed to be *A. simplex* were morphologically identical.

The original types of *Heptagenia cruentata* were destroyed in the Chicago fire of 1871 (Burks 1953). Although the single male adult and single female adult now residing in the Harvard University Museum of Comparative Zoology were identified as *H. cruentata* by Walsh, they are not available as lectotypes because they were collected a year after the published description (Walsh,

B. D. 1863. Proc. Entomol. Soc. Phila. 2: 167–272). Thus, the name has remained a nomen dubium, with the descriptions of McDunnough (1924. Canad. Entomol. 56: 90–98) (as *Heptagenia reversalis*), Traver (1935. In Needham, J. G., J. R. Traver, and Y. C. Hsu. The Biology of Mayflies. Comstock Publ. Co., Ithaca, NY. 759 pp.), and Burks (1953) providing the bases for identification. I therefore designate a neotype for *Raptoheptagenia cruentata* (Walsh) as follows: Larva: Indiana, Martin County, East Fork White River at Hindustan Falls Public Fishing Site, VII-15-1982, A. V. Provonsha and V. Van Allen; in alcohol with “neotype” label; deposited in the type collection of the Purdue Entomological Research Collection, West Lafayette, Indiana. Since the generic concept is based on the distinctive larval morphology, and in light of the recent reared association, a larva is appropriate as the neotype specimen of the type species of the monospecific *Raptoheptagenia*. Adults of *R. cruentata* have also been taken at the neotype locality.

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